

Claims:

1. A combined gas and electrostatic filter construction (2), which includes

- first electrodes (14),
- second electrodes (15), which are electrically insulated from the first electrodes (14), and
- an insulating material (12) acting as a particle filter, which is located between the first (14) and the second electrodes (15), whereby
- a difference in electrical potential between the electrodes (14, 15) can be created, in order to create an electrical field between the electrodes (14, 15),

characterized in that

- the material (14, 15) of at least one of the electrodes (14, 15) is a material, such as activated carbon, which is permeable to air and which filters gases, and which has a low electrical conductivity,
- both electrodes (14, 15) are set substantially parallel to the direction of the airflow, and
- the gas filtering electrode (15) is shaped to form a bag.

2. An electrostatic filter construction (2) according to Claim 1, characterized in that one electrode (15) with low electrical conductivity is constructed like a bag and particle filtering is arranged inside it with the aid of the filter material (12) and the electrodes (14, 15).

3. An electrostatic filter construction (2) according to Claim 1 or 2, **characterized** in that one of the electrodes (14, 15) has low electrical conductivity and the other is electrically conductive.
4. An electrostatic filter construction (2) according to any of the above Claims, **characterized** in that one of the electrodes (14, 15) is connected to an earth potential and the other to a higher potential.
5. An electrostatic filter construction (2) according to any of the above Claims, **characterized** in that one of the electrodes (14, 15) is allowed to float and the other is connected to an earth potential.
6. An electrostatic filter construction (2) according to any of the above Claims, **characterized** in that the electrodes (14, 15) are arranged in such a way that at least most of the airflow is arranged to travel through the bag-like electrode (15).
7. An electrostatic filter construction (2) according to any of the above Claims, **characterized** in that a charging section (1), which charges the particles to be filtered, is arranged before the filter (2) in the path of the air flow.
8. An electrostatic filter construction (2) according to any of the above Claims, **characterized** in that the filter material (12) is arranged to be changeable.